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Consilience Rebalanced: Edward O. Wilson on Science, the Humanities and the Meaning of Human Existence

John Holmes

Edward O. Wilson's 1975 book *Sociobiology* founded a discipline and sparked one of the most heated controversies in modern evolutionary biology. Lately Wilson has been back in the fray, this time with a series of papers and books arguing for the abandonment of the theory of inclusive fitness—the core of Neo-Darwinism, and by Wilson's own account a key framework for his own thinking in *Sociobiology* (*Meaning of Human Existence* 69-70)—and the reinstatement of the earlier concept of group selection. The hubbub around Wilson's apostasy on this central tenet of modern evolutionary theory has unsurprisingly obscured what appears to be another recent change of mind, or perhaps of heart, on his part. For scholars working at the interface between science and the humanities, Wilson's influence has been no less pronounced and no less controversial than it has among his fellow biologists. Like *Sociobiology*, Wilson's *Consilience*, first published in 1998, gave a name to a burgeoning field of study. Here Wilson called for a coming together of the sciences and the humanities "to create a common groundwork of explanation" (6). His specific proposal for a critical method was to apply the findings of evolutionary psychology to the arts, on the grounds that "even the greatest works of art might be understood fundamentally with knowledge of the biologically evolved epigenetic rules that guided them" (237). Wilson did not instigate the project of interpreting literature and the other arts as expressions of our evolved biology, but his manifesto became its rallying cry, not least because his work in sociobiology and evolutionary psychology was already constitutive of its approach. Wilson's centrality to this movement is apparent in his place within its own major manifesto collections. Brett Cooke and Frederick Turner included a selection of his writings on art in *Biopoetics*, which appeared in 1999, the year after *Consilience*. Wilson himself contributed one of the two Forewords to Jonathan Gottschall's and David Sloan Wilson's *The Literary Animal* in 2005. In a more recent collection, published in 2012, Edward Slingerland and Mark Collard take their title *Creating Consilience* from Wilson's book. They define their own project as formulating methodological principles for a second wave of consilient scholarship on anthropology, cultural studies, religion, ethics, and literature.

Although *Consilience* ostensibly offered an entente between the sciences and the humanities, in practice it was more of a putsch. Because, according to Wilson, "the only way either to establish or to refute consilience is by methods developed in the natural sciences" (7), the humanities would have to knuckle under and "lift the anathema placed on reductionism" (234). In return, they were promised a "reinvigoration of interpretation with the knowledge of science and its proprietary sense of the future" (234), but—as the supreme self-confidence of this last phrase intimates—the terms of the exchange were to be set by science for our own good. As Slingerland and Collard acknowledge, Wilson gives "the impression that consilience involves the sciences engulfing the humanities—a prospect that is understandably off-putting for humanists" (4). He gives this impression because that *is* the logic of his programme as he defined it in *Consilience*. Subsequent thinkers responding to his call have sought to repudiate or nuance this position. For Stephen Jay Gould, what was

required instead was "a consilience of equal regard" (259). For Slingerland and Collard too, second-wave consilience needs to be a proper "two-way street" (30) in which it is acknowledged that, while "methods borrowed from the sciences can benefit the humanities" (22), it is equally true that scientists working on culture, religion, literature and other productions of humanity "need to draw on humanistic expertise if they are to effectively decide what sorts of questions to ask, how to frame these questions, what sorts of stories to tell in interpreting their data, and how to grapple with the ethical and social repercussions of scientific discoveries about complex human phenomena" (31).

In one of his most recent books, entitled *The Meaning of Human Existence*—he is never knowingly understated—Wilson himself implicitly re-evaluates his own proposals for consilience on more equal terms. One section of this book takes its title from the subtitle of *Consilience—The Unity of Knowledge*—while the entry for "consilience" in the index (205) covers the same set of page numbers, but the word itself is surprisingly absent. Wilson continues to champion what he sees as an Enlightenment project to bridge the "two cultures" divide (39), arguing that "studying the relation between science and the humanities should be at the heart of liberal education everywhere, for students of science and the humanities alike" (40). This apparently balanced and equal proposition seems at first to give way to the same old hierarchy, whereby the "explosive growth of scientific knowledge" has an emphatic "*Everything*" "to do with the humanities" (51), while "the creative arts and much of the humanities scholarship analysing them are . . . in an important sense just the same old story, with the same themes, the same archetypes, the same emotions" (42). Where "science and technology reveal with increasing precision the place of humanity, here on Earth and beyond in the cosmos as a whole", the humanities "celebrate the tiny segments of the continua they know, in minute detail and over and over again in endless permutations" (51). Yet almost immediately after this last quoted passage, Wilson opens a new chapter which he arrestingly titles "The All-Importance of the Humanities" (53). The premise of this new chapter is that, were an extra-terrestrial species to visit Earth, it would recognise the humanities as our "one vital possession worthy of their attention" (53). Where "the secrets of our science" (53) would be simply the same as theirs, but long superseded by them if they were to have the ability to visit us rather than the other way round, the humanities would provide them with a record of our cultural evolution, our one unique contribution to the history of the universe. At the end of this chapter, Wilson even goes so far as to say that the humanities *are* "that which makes us human" (60).

How can Wilson's initial belittling of the humanities beside science be squared with his subsequent elevation of them into our one truly significant achievement? And where does this new insistence on their unique worth leave his project of consilience? Wilson's initial diminishment of the humanities has two distinct objects. The first, as in both *Sociobiology* and *Consilience*, is to promote evolutionary explanations of human psychology. This leads him to identify "human nature" as "the ensemble of hereditary regularities in mental development that bias cultural evolution in one direction as opposed to others" (143). The singularity of "one direction" here reveals how Wilson remains predisposed to see cultural convergence, not divergence. His second, quite distinct, aim is to counter the anthropocentrism which prevails within human culture itself. By this logic, as we are only one species, with only one set of evolved faculties for experiencing and comprehending the world among millions, our cultural products must of necessity be only "tiny segments" of the overall "continua" that exist within the universe, in particular when what they contemplate is ourselves.

In his continued quest to define "human nature", Wilson appears to lag behind Slingerland and Collard, who note that "the diversity of human cognition across cultures and through historical time . . . is one of the most basic of truisms in the humanities" (34) which psychologists need to take account of. But again a more detailed look reveals a subtly different argument in favour of the humanities. According to Wilson, the humanities are so valuable, both to imagined aliens and to ourselves, because "they are the natural history of culture" (57). This striking phrase contains a complex linguistic layering, as the cultural concept of history is applied to the natural world only to be reapplied, now as natural history, to the cultural sphere. Our culture is part of our nature, for Wilson, and rightly so. But it can only be fully known, as he himself remarks, through "interpreting all of the intricate feelings and constructions of the human mind" and "intimate contact with people and knowledge of countless personal histories" (56). "All this the humanities do" (57), Wilson insists. Science describes the recurrent patterns of human behaviour, but it is the humanities that give us the "minute detail", not because they are obsessive and narrow-minded, but because without that detail we cannot properly comprehend ourselves in the full range of our variety.

As an exercise in natural history, the humanities can be said to remain a form of science within Wilson's latest version of his programme for consilience. But natural history is itself a science cast in the image of the humanities, and the humanities' own, distinctive contribution is given due worth. Repeatedly in his account of the meaning of human existence, indeed, Wilson matches the incursions of science into the domain of the humanities that characterised *Consilience* with episodes and formulae that reveal how science itself is indebted to humanities methods. The conceit of a visiting alien, which Wilson directly attributes to "the confabulations of science fiction" (53), is one example. Another is his chapter "Humanity Lost in a Pheromone World" (79-91). Here it is ostensibly science which is able to demonstrate to the humanities "how bizarre we are as a species, and why" (79)—essentially, how our own experience of the world is radically unlike that of most other living beings, whose perception and communication take place principally through chemicals. Yet the demonstration itself takes the form not principally of data but of a piece of imaginative writing. Ultimately, we need the inescapably anthropocentric methods of the humanities to enable us to escape anthropocentrism.

Perhaps Wilson's willingness to extend the range of the humanities into the world of science, as well as the other way around, should not surprise us after all. Throughout his work he has insisted that art lies at the heart of science itself. There is one sentence in particular that recurs across several of his books in different forms. In *Biophilia*, it runs "The ideal scientist can be said to think like a poet, work like a clerk, and write like a journalist" (62). By *Consilience*, it has become "The ideal scientist thinks like a poet and works like a bookkeeper, and I suppose that if gifted with a full quiver, he also writes like a journalist" (62). Here the first two propositions have become affirmed truths, the third somewhat more tentative. In *The Meaning of Human Existence*, the journalist is altogether dispensed with, but now it is not just the "ideal" scientist but "the most successful scientist" who "thinks like a poet—wide ranging, sometimes fantastical—and works like a bookkeeper" (41). The quality of the poetry within science comes into closer focus in this latest iteration. It stands for an imaginative breadth, at times a far-fetched-ness. Like the Victorian chemist John Tyndall in his famous 1870 lecture on "The Scientific Use of the Imagination", Wilson remarks that scientists are required to avoid this quality scrupulously in enacting their professional roles *as* scientists. Tyndall's scientists "fight shy" of the

word "imagination" because of its "ultra-scientific connotations" (II, 104); Wilson's are "careful never to be accused of rhetoric or poetry" (41). But for Wilson, as for Tyndall, "the fact is that without the exercise of this power, our knowledge of nature would be a mere tabulation of co-existences and sequences" (Tyndall II, 104).

In *Consilience*, Wilson's ideal scientist may think like a poet, but "Wordsworth and his fellow English Romantic poets . . . spoke truths in another tongue" (36-37). This phrase comes across as nebulous and unconvincing within the book's overall scientific argument, where the only reliable source of truth is scientific reductionism. In *The Meaning of Human Existence*, however, Wilson's claim that the imaginative processes of creative art are equally vital to science seems more genuine. In effect, this is a return to the stance he took in *Biophilia* itself. At one point in this much earlier and more overtly personal book, he asks "What is it exactly that binds us so closely to living things?" (84) In his answers, he distinguishes the scientist-as-scientist from the scientist-as-poet:

The biologist will tell you that life is the self-replication of giant molecules from lesser chemical fragments, resulting in the assembly of complex organic structures, the transfer of large amounts of molecular information, ingestion, growth, movement of an outwardly purposeful nature, and the proliferation of closely similar organisms. The poet-in-biologist will add that life is an exceedingly improbable state, metastable, open to other systems, thus ephemeral—and worth any price to keep. (84-85)

Wilson's poet-in-biologist is a biologist with a sense of value, but more importantly one whose sense of value is a product of his imaginative apprehension of his subject: life. Crucially, he is alert to the precariousness and potential for change within a process that, as a biologist alone, he sets out simply as a series of fixed relations. In *Consilience*, poetry and the other arts can only be properly understood by science; in *Biophilia* and *The Meaning of Human Existence*, by contrast, science without poetry is sterile and limited.

Wilson's championing of the humanities as the natural history of culture in *The Meaning of Human Existence*, his insistence in *Biophilia* that we are "The Poetic Species" (57), are rare among the advocates of consilience as he himself defined it. Slingerland and Collard accept that scientists need to learn from humanists when studying humanity, but even their second-wave consilience does not entertain the possibility that the humanities might shed light on science itself. Yet Wilson's claims imply that, even as science can intrude on the domain of the humanities, so the humanities are required if we are to understand science fully. There is at once a not unjustified self-regard and an admission in his claim that the successful scientist should be at times fantastical. Wilson's writing trades on his authority as a scientist, yet his science itself is in origin what Olaf Stapledon called, with reference to his own evolutionary fiction, "an essay in myth creation" (xiv). His key concepts—sociobiology, biophilia, biodiversity, consilience—are master narratives, myths of humanity's relationship to nature and ourselves. To apprehend them, we need not only to study his science, but to probe the poetic imagination that gave them form and expression. And if Wilson is right to define success in science as the exercise of this poetic imagination, then a proper consilience must learn to trace the poetics of scientific ideas in all their "minute detail", to subject the scientific imagination to the same degree of attentive analysis as fiction and poetry proper, and not to settle for

bringing the humanities into line with, or even involving them in the composition of, the master narratives of science.

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